

AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for introducing hydroxyl groups into an ethylene- α -olefin copolymer to produce a hydroxyl-modified ethylene- α -olefin copolymer, the method ~~comprising~~ consisting of:
kneading 100 parts by weight of an ethylene- α -olefin copolymer having a Mooney viscosity of 10 to 250 at 100°C and 0.1 to 20 parts by weight of a peroxide having a hydroperoxy group to prepare a kneaded mixture essentially containing the peroxide and the ethylene- α -olefin copolymer, wherein the peroxide has a 10-hour half-life temperature and a 1-minute half-life temperature; and
heating [(a)] the kneaded mixture essentially containing the peroxide and the ethylene- α -olefin copolymer at a temperature equal to or exceeding the 10-hour half-life temperature of the peroxide having a hydroperoxy group and not higher than the 1-minute half-life temperature of the peroxide having a hydroperoxy group to introduce hydroxyl groups into the ethylene- α -olefin copolymer via hydrogen abstraction.
2. (Currently Amended) A method for introducing hydroxyl groups into an ethylene- α -olefin copolymer to produce a hydroxyl-modified ethylene- α -olefin copolymer, the method ~~comprising~~ consisting of:
kneading 100 parts by weight of an ethylene- α -olefin copolymer, 0.1 to 20 parts by weight of a peroxide having a hydroperoxy group, and a radical generator having a radical generating group so that not more than 1 mole of the radical generating groups are present with respect to 1 mole of the hydroperoxy groups to prepare a kneaded mixture essentially containing

the ethylene- α -olefin copolymer, the peroxide and the radical generator,
wherein said peroxide has a 10-hour half-life temperature and said radical
generator has a 10-hour half-life temperature not higher than the 10-hour
half-life temperature of the peroxide; and

heating [[a]] the kneaded mixture essentially containing the ethylene- α -olefin
copolymer, the peroxide and the radical generator at a temperature equal
to or exceeding the 10-hour half-life temperature of the radical generator
and not higher than 220°C to introduce hydroxyl groups into the ethylene-
 α -olefin copolymer via hydrogen abstraction.

3. (Previously Presented) The method according to claim 2, wherein the peroxide is t-butyl hydroperoxide, t-amyl hydroperoxide, t-hexyl hydroperoxide, t-octyl hydroperoxide, cumene hydroperoxide or diisopropylbenzene hydroperoxide.
4. (Cancelled).
5. (Previously Presented) The method according to claim 2, wherein the ethylene- α -olefin copolymer has Mooney viscosity of 10 to 250 at 100°C.
6. (Previously Presented) The method according to claim 2, wherein the radical generator is a compound having a 1-minute half-life temperature not higher than 195°C.
7. (Previously Presented) The method according to claim 2, wherein the ethylene- α -olefin copolymer is a bipolymer of ethylene and an α -olefin or a terpolymer of ethylene, an α -olefin and a diene.
8. (Cancelled).
9. (Cancelled).

10. (Previously Presented) The method according to claim 1, wherein the peroxide is t-butyl hydroperoxide, t-amyl hydroperoxide, t-hexyl hydroperoxide, t-octyl hydroperoxide, cumene hydroperoxide or diisopropylbenzene hydroperoxide.
11. (Cancelled).
12. (Cancelled).
13. (Previously Presented) The method according to claim 1, wherein the ethylene- α -olefin copolymer is a bipolymer of ethylene and an α -olefin or a terpolymer of ethylene, an α -olefin and a diene.
14. (Cancelled).
15. (Cancelled).
16. (Previously Presented) The method according to claim 1, wherein said heating includes replacing a hydrogen atom of the ethylene- α -olefin copolymer by a hydroxyl group of the peroxide having a hydroperoxy group.
17. (Previously Presented) The method according to claim 2, wherein said heating includes replacing a hydrogen atom of the ethylene- α -olefin copolymer by a hydroxyl group of the peroxide having a hydroperoxy group.